

# MO-G641000 General Permit for Zeolite Water Softener Filter Backwash

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The Clean Water Act (CWA), passed by Congress in 1972, created the basic framework for regulating the discharge of pollutants from industry (point source pollution) into rivers and streams. The CWA gives the EPA the authority to establish the National Pollutant Discharge Elimination System (NPDES) to develop effluent limits using both Technology Based Effluent Limitations (TBELs) and Water Quality Based Effluent Limitations (WQBELs). This allows states, territories and tribes to develop effluent limits and to permit discharges based on the best available treatment technology and pollution prevention measures. State regulations, called water quality criteria, also aid the department in setting limits based on scientifically defensible standards that ensure the protection of designated uses of a receiving water. The most protective value of TBEL or WQBEL is always used to set permit limits.

MO-G641 authorizes discharges of backwash water from potable water supply softening units with Zeolite filters. It does not authorize the discharge of any water other than water softener backwash water. A backwashing filter is a water filter that cleans itself periodically by rinsing away the impurities it has removed from the water. It consists of a tank that is filled with a filtering substance (in this case zeolite). Water enters the top of the tank and passes through the filter medium which removes impurities and holds them. When the filter medium is saturated with contaminants, the control valve initiates a backwash rinsing. The water containing the concentrated impurities that are rinsed from the filter medium is the focus of this permit.

Facilities applying for MO-G641 must submit "Form E - Application for General Permit" (MO 780-0795), which can be found at [www.dnr.mo.gov/forms/780-0795-f.pdf](http://www.dnr.mo.gov/forms/780-0795-f.pdf), along with the appropriate fees. After issuance of the permit, fees will be assessed annually. A permit may be transferred to a new owner by submitting "Application for Transfer of Operating Permit" (MO 780-1517), which can be found at [www.dnr.mo.gov/forms/780-1517-f.pdf](http://www.dnr.mo.gov/forms/780-1517-f.pdf), along with the appropriate fees.

Facilities using zeolite filters must monitor for chlorides, settleable solids, total recoverable copper, total recoverable lead and pH. They must also maintain compliance with water quality standards under 10 CSR 20-7.031, including both specific and general criteria. These requirements are in addition to requirements for drinking water or other industrial uses. Facilities that directly discharge to a wastewater treatment plant permitted to accept wastewater similar in nature to the zeolite backwash, and facilities that pump and haul their backwash discharge to a receiving facility are not required to obtain this permit. If the facility desires to use land application as a means of disposal for their zeolite backwash water may apply for the MO-G64 permit- "Land Application of Water Treatment Plant Filter Backwash."

All General Permits are effective for a period of up to five (5) years, but may be terminated earlier when activities covered by the permit have ceased and no significant materials are stored in such a way as to come into contact with stormwater. When general permit termination is sought, the permittee must submit "Form H – Request for Termination of a General Permit" (MO 780-1409), which can be found at [www.dnr.mo.gov/forms/780-1409-f.pdf](http://www.dnr.mo.gov/forms/780-1409-f.pdf).

For more information contact the Department of Natural Resources Water Protection Program, P.O. Box 176, Jefferson City, Missouri 65102-0176. Phone: 800-361-4827 or 573-751-1300. Fax: 573-526-1146. [dnr.mo.gov/env/wpp/index.html](http://dnr.mo.gov/env/wpp/index.html).